







# L'Ordre du Jour / Agenda for CCMI Workshop

13-15 Juin/June 2017, Toulouse

### Mardi 13 Juin / Tuesday 13 June

\*\*invited speakers in green

Session 1: CCMI and its Big Brothers (Chair: Michaela)				
09:00-09:10	Marc Pontaud Béatrice Josse Jean Maziejewski Alison Ming	Welcome		
09:10-09:20	CCMI Co-chairs	CCMI overview/Goals of the workshop		
09:20-09:25	Colette Heald	IGAC – status		
09:25-09:30	Fiona Tummon	SPARC – status		
09:30-10:00	Guy Brasseur	WCRP – Global Change Research in the Future		
10:00-10:30	Didier Hauglustaine	Evaluation of the global distribution of particulate nitrate and its impact on air quality, climate and ecosystems		
10:30-11:00	Café-Thé / Coffee-Tea			
	Session 2: Links with other	er Community Activities (Chair: Gunar Myhre)		
11:00-11:20	Michael Schulz	Aerosol climate forcing analysis in AeroCom and AerChemMIP		
11:20-11:40	Stefano Galmarini	HTAP – Testing hemispheric transport in models		
11:40-12:00	Doug Kinnison	CCMI and the WMO Scientific Assessment of Ozone Depletion: 2018		
12:00-12:20	Ramiro Checa-Garcia	The CCMI ozone forcing database in support of CMIP6 (1850-2100)		
12:20-13:00	Discussion Period in Session 2: Setting the Workshop Tone			
13:00-14:00	Le Déjeuner / Lunch			
	Session 3: Str	atosphere (Chair: Seok-Woo Son)		
14:00-14:20	Luke Oman	Stratospheric Composition and Transport: How observations help us decode the past to better project the future		
14:20-14:40	David Plummer	Comparing the stratosphere in the CCMI Specified Dynamics and REF-C1 simulations		
14:40-15:00	Björn-Martin Sinnhuber	A multi-model analysis of Arctic stratospheric ozone depletion in CCMI C1SD-simulations		
15:00-15:20	Martin Dameris	Short- and long-term fluctuations of stratospheric water vapor and ozone in CCMI simulations of EMAC		
15:20-15:40	Lucien Froidevaux	Evaluation of CESM1 (WACCM) free-running and specified- dynamics upper atmospheric simulations using global multi- species satellite data records		
15:40-16:00	Discussion Period in Session 3			
16:00-16.30	16:00-16.30 Café-Thé / Coffee-Tea			
Poster Session 1				
18.00	Cocktail de bienven	ue / Icebreaker (bus to city centre leaves venue 20.00 PM)		

### Mercredi 14 Juin / Wednesday 14 June

**Conference dinner (location TBD)** 

20:00

	Session 4: Observati	ions for Model Evaluation (Chair: Bryan)		
09:00-09:20	Jonathon Wright	A cause-and-effect assessment of discrepancies in reanalysis-driven diabatic transport calculations in the trop upper troposphere and stratosphere		
09:20-09:40	Valerie Thouret	IAGOS: 20 years of in-situ observations in the UTLS		
09:40-10:00	Martin Schultz	Tropospheric Ozone Assessment Report: Database and Metrics Data of Global Surface Ozone Observations		
10:00-10:20	Roisin Commane	Using airborne and in situ observations to test model inter- comparison studies		
10:20-10:40	Colette Heald	Observationally-Driven Model Explorations of Tropospheric Aerosols		
10:40-11:00	Discussion Period in Sessi	Discussion Period in Session 4		
11:00-11:30	Café-Thé / Coffee-Tea			
Poster Session 2				
13:00-14:00	Le Déjeuner / Lunch			
13:00-14:00	-	roposphere Coupling (Chair: David Plummer)		
13:00-14:00 14:00-14:20	-	Response of Antarctic sea surface temperature and sea ice cover to ozone depletion		
	Session 5: Stratosphere-T	Response of Antarctic sea surface temperature and sea ice cover to ozone depletion  The Importance of Interactive Chemistry for Circulation Changes due to Southern Hemisphere Ozone Trends		
14:00-14:20	Session 5: Stratosphere-T  David Ferreira	Response of Antarctic sea surface temperature and sea ice cover to ozone depletion  The Importance of Interactive Chemistry for Circulation		
14:00-14:20 14:20-14:40	Session 5: Stratosphere-T  David Ferreira  Sabine Haase	Response of Antarctic sea surface temperature and sea ice cover to ozone depletion  The Importance of Interactive Chemistry for Circulation Changes due to Southern Hemisphere Ozone Trends  Aerosol versus greenhouse gas forcings on the Southern		
14:00-14:20 14:20-14:40 14:40-15:00	Session 5: Stratosphere-T  David Ferreira  Sabine Haase  Seok-Woo Son	Response of Antarctic sea surface temperature and sea ice cover to ozone depletion  The Importance of Interactive Chemistry for Circulation Changes due to Southern Hemisphere Ozone Trends  Aerosol versus greenhouse gas forcings on the Southern Hemisphere general circulation change		
14:00-14:20 14:20-14:40 14:40-15:00 15:00-15:20	Session 5: Stratosphere-T  David Ferreira  Sabine Haase  Seok-Woo Son  Amanda Maycock	Response of Antarctic sea surface temperature and sea ice cover to ozone depletion  The Importance of Interactive Chemistry for Circulation Changes due to Southern Hemisphere Ozone Trends  Aerosol versus greenhouse gas forcings on the Southern Hemisphere general circulation change  The solar cycle in CCMI models		
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14:00-14:20 14:20-14:40 14:40-15:00 15:00-15:20 15:20-15:40 15:40-16:00	Session 5: Stratosphere-T David Ferreira Sabine Haase Seok-Woo Son Amanda Maycock Susann Tegtmeier Ryan Hossaini Café-Thé / Coffee-Tea	Response of Antarctic sea surface temperature and sea ice cover to ozone depletion  The Importance of Interactive Chemistry for Circulation Changes due to Southern Hemisphere Ozone Trends  Aerosol versus greenhouse gas forcings on the Southern Hemisphere general circulation change  The solar cycle in CCMI models  Atmosphere-ocean coupling through trace gases  The impact of short-lived halogens on composition and climate: an overview of recent advances with a focus on ozone  Comparing Brewer-Dobson circulation characteristics in		
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14:00-14:20 14:20-14:40 14:40-15:00 15:00-15:20 15:20-15:40 15:40-16:00 16:00-16:30 16:30-16:50 16:50-17:10	Session 5: Stratosphere-T David Ferreira Sabine Haase Seok-Woo Son Amanda Maycock Susann Tegtmeier Ryan Hossaini Café-Thé / Coffee-Tea Andreas Chrysanthou Clara Orbe	Response of Antarctic sea surface temperature and sea ice cover to ozone depletion  The Importance of Interactive Chemistry for Circulation Changes due to Southern Hemisphere Ozone Trends  Aerosol versus greenhouse gas forcings on the Southern Hemisphere general circulation change  The solar cycle in CCMI models  Atmosphere-ocean coupling through trace gases  The impact of short-lived halogens on composition and climate: an overview of recent advances with a focus on ozone  Comparing Brewer-Dobson circulation characteristics in CCMI-1 models  Transport from the Northern Hemisphere Midlatitude Surface: Comparisons Between the CCMI Models		

## Jeudi 15 Juin / Thursday 15 June

Session 6: Troposphere Chemistry & Dynamics (Chair: Arlene)				
09:00-09:20	Kengo Sudo	Interannual variability and long-term trends in global tropospheric chemistry and aerosols during recent decades and in the future		
09:20-09:40	Fiona Tummon	Diagnosing changes in free tropospheric ozone over Europ A model study		
09:40-10:00	Alok Pandey	Comparison of satellite-derived and UKCA model-simulated air pollutants data over the Indo-Gangetic Plains		
10:00-10:20	Miyazaki Kazuyuki	Evaluation of ACCMIP and CCMI ozone simulations using a multi-constituent chemical reanalysis		
10:20-10:40	Julie Nicely	Quantifying the Causes of Differences in Tropospheric OH Within Global Models Part 2: The Power of Hourly Output and the Promise of Global Observations		
10:40-11:00	Discussion Period in Session 6			
11:00-11:30	Café-Thé / Coffee-Tea			
Poster Session 3				
13:00-14:00	Le Déjeuner / Lunch			
	Session 7: La Grande Finale! (Chair: Bryan Duncan)			
14:00-14:20	Kentaroh Suzuki	Significance of cloud and precipitation processes in aerosol effect on climate: Satellite observations and modeling		
14:20-14:40	Loretta Mickley	The climate change penalty on US air quality: New perspectives from statistical models		
14:40-15:00	Jordan Schnell	Global air pollution episodes and the meteorology that drives them		
15:00-16:00	Discussion Period in Sess	sion 7: The Future of CCMI		

#### **Posters**

ALL submitted presentations that were not selected for oral presentations were accepted as poster presentations. Please let Michaela (<a href="mailto:m.i.hegglin@reading.ac.uk">m.i.hegglin@reading.ac.uk</a>) know if there is a problem, such as you cannot find your title anywhere in the agenda.

N° Abstract	Nom	Prénom	Titre		
			A three-week total ozone reduction over Rio Gallegos in		
31	A latin and a latin	112 dala ann	Argentina in November 2009 and its relation to		
	Akiyoshi	Hideharu	planetary wave activity in the stratosphere and blocking		
			in the troposphere		
_			Long term fine aerosol and tropospheric ozone over		
1	Ambade	Balram	Chota Nagpur Plateau (CNP), India		
		Juan A.	Exploring the possibilities of cloud computing for climate		
89	Añel		modelling		
28		Alexander	Evaluation of CCMI historical evolution of tropospheric		
	Archibald		ozone budget		
			Emergent constraints in chemistry-climate interactions:		
60	Bowman	Kevin	a Bayesian Approach		
79	Braesicke	Peter	How robust is the Holton-Tan relationship?		
73	Didesieke	reter	Halogen and sulfur rich explosive eruptions in the		
45	Brenna	Hans	tropics: A potential threat to the future ozone layer?		
43	Dieilia	Tialis	Halogen and sulfur rich explosive eruptions in the tropics		
			Revisiting Southern Hemisphere polar stratospheric		
29	Calvo	Natalia Natalia	temperature trends in WACCM: The role of dynamical		
29	Calvo	Natalia			
			forcing  Overhiting the current extent of group recovery from		
69	Chipperfield	Martyn	Quantifying the current extent of ozone recovery from observations and models		
95	Cionni	Irene	Long-term ozone changes and associated climate		
			impacts in CCMI simulations		
22	Dhomse	Sandip	New microphysical volcanic forcing datasets for the		
		'	Agung, El Chichon and Pinatubo eruptions		
65	Dietmüller	Simone	Stratospheric Age of Air in CCMVal-2 and CCMI model		
			simulations		
72	Errera	Quentin The BASCOE Reanalysis of Aura MLS (BRAM)			
		Evgenia	Variability of stratospheric NO2: CTM evaluation using		
51	Galytska		SCIAMACHY measurements and its further application		
			for photochemical conversion		
		Chaim	Nonlinear response of tropical lower stratospheric		
18	Garfinkel		temperature and water vapor to ENSO: implications		
			for the millenium drop		
19	Garfinkel	Chaim	Time varying changes in the simulated structure of the		
		Gridini	Brewer Dobson Circulation		
77	Griffiths	Paul	Analysis of surface O3 in the UKCA CCMI simulations		
	Hardiman / oConnor	Steven	The Met Office HadGEM3-ES Chemistry-Climate Model:		
94			Evaluation of stratospheric dynamics and its impact on		
			ozone		
14	lung	Myung-Il	Possible impact of tropospheric ozone and methane		
14	Jung		changes on the recent Arctic warming		
49	Keeble	James	Diagnosing the radiative and chemical contributions to		
			future changes in tropical column ozone with the UM-		
			UKCA chemistry-climate model		
27	Kim	Byung-Gon	Observed modifications of clouds and precipitation by		
37			severe hazes in Korea		
34	.,,	<del>Seo-Yeon</del>	How well the state-of-the-art chemistry-climate models		
	Kim		simulate tropospheric ozone in the East Asia?		
		Le	The Attribution of variation in top-of-atmosphere flux		
39	Kuai		over 9.6-micron Ozone band to tropospheric ozone,		
33			water vapor, and temperature		
		1	mate. Tapor) and temperature		

			Ultraviolet radiation evolution in the tropics during the	
71	LAMY	Kevin	21st century	
93	Latter	Barry	20+ year height-resolved ozone data from GOME-class instruments for ESA-CCI / C3S and 9+ years IASI methane.	
66	Lee	Seungun	Global and regional climate impact of interactive ozone and aerosols from a new coupled chemistry-climate model (GRIMs-Chem)	
87	Maycock	Amanda	The contribution of ozone to future stratospheric temperature trends	
88	Maycock	Amanda	The representation of solar cycle signals in stratospheric ozone in CCMI models and global ozone databases	
95	Michou	Martine	The ozone representation in the CNRM climate model	
13	Ming	Alison	Ozone and water vapour contributions to the temperature annual cycle in the tropical lower stratosphere	
58	Morgenstern	Olaf	Using CCMI simulations to construct stratospheric ozone ancillaries for use in CMIP6 simulations	
94	Murray	Lee	Chemistry-climate feedbacks of lightning NOx across multiple time horizons	
68	Nagashima	Tatsuya	Summertime surface O3 minimum in the East Asian maritime region: a comparison of observations with MIPs	
55	Oman	Luke	Chemistry Simulations using MERRA-2 Reanalysis with the GMI CTM and Replay in Support of the Atmospheric Composition Community	
63	Kim	Minjoong	Regional Arctic amplification accelerated by anthropogenic sulphate aerosol forcing in China	
21	Quack/ Tegtmeier	Birgit	Future emissions of marine halogenated Very-Short Lived Substances under climate change	
59	Revell	Laura	Comparison of the CCMI and CMIP6 stratospheric aerosol datasets in REF-C1 simulations	
5	SAHU	Lokesh	Impact of convection in the vertical distribution of O3 and CO over an urban region of India	
86	Salawitch / Nicely	Ross	Stratospheric Inorganic Bromine Loading Inferred from Field Campaigns in the Tropical Western Pacific: Implications for CCMI	
56	Seguel	Rodrigo	Tropospheric ozone column variation at mid-latitude in the southern hemisphere	
41	Sekiya	Takashi	Global high-resolution simulations of tropospheric nitrogen dioxide using CHASER	
36	Smith	Jacob W	Assessing the relationship between tropical tropopause temperatures and stratospheric water vapour in global climate models using trajectory studies	
92	Son	Seok-Woo	Long-term ozone changes and their climate impacts in CCMI simulations	
84	Tegtmeier	Susann	Evaluation of atmospheric composition in CCMI models based on the SPARC Data Initiative satellite data sets	
67	Vazhathottathil	Madhu	Interannual variability of column ozone and its link with Oceanic Niño Index based on satellite observation and chemistry climate model	
90	Walker	Thomas	Spatial attribution of decadal changes in methane and ozone radiative forcing constrained by satellite observations	
15	Williams	Ryan	The impact of stratosphere-troposphere exchange (STE) on tropospheric ozone	
42	Yamashita	Yousuke	The CCSR/NIES-MIROC3.2 CCM simulations of the low ozone anomaly in Arctic spring in the QBO-westerly and solar-minimum years	
33	Zhang	Wen-Ting	Characteristics of severe hazes accompanied with precipitation observed in Korea for 2011-2013	